

We claim:

1. A method of treating, preventing, or minimizing adhesion formation during or following a surgical procedure comprising administering to a patient in need thereof a therapeutically effective amount of at least one COX-2 inhibitor, wherein the COX-2 inhibitor is not nimesulide.
2. A method of treating, preventing, or minimizing keloid formation during or following a surgical procedure comprising administering to a patient in need thereof a therapeutically effective amount of at least one COX-2 inhibitor.
3. A method of treating or preventing benign hypertrophic tumors comprising administering to a patient in need thereof a therapeutically effective amount of at least one COX-2 inhibitor.
4. A method of treating, preventing, or minimizing scar formation during or following a surgical procedure comprising administering to a patient in need thereof a therapeutically effective amount of at least one COX-2 inhibitor.
5. A method of treating, preventing, or minimizing contracture formation during or following implantation of synthetic, autologous, or heterologous implants comprising administering to a patient in need thereof a therapeutically effective amount of at least one COX-2 inhibitor.
6. The method of claim 1 wherein the adhesion is between organ or tissue surfaces.
7. The method of claim 4 wherein the surgical procedure is cosmetic or by incision.

8. The method of claim 5 wherein the implant is a breast implant, implant used in cosmetic surgery, abdominal implant, urologic implant, or an orthopedic implant.
9. The method of claims 1-5 wherein the COX-2 inhibitor is selected from the group consisting of celecoxib, parecoxib, rofecoxib, valdecoxib, meloxicam, and etoricoxib.
10. The method of claims 1-5 wherein the COX-2 inhibitor is administered to said patient before surgery.
11. The method of claims 1-5 wherein the COX-2 inhibitor is administered by applying to organ surfaces during surgery.
12. The method of claims 1-5 wherein the COX-2 inhibitor is administered after surgery.
13. The method of claim 12 wherein the COX-2 inhibitor is administered by use of a suppository.
14. A method of treating, preventing, or minimizing adhesion formation during or following a surgical procedure comprising administering to a patient in need thereof a therapeutically effective amount of celecoxib.
15. A method of treating, preventing, or minimizing keloid formation during or following a surgical procedure comprising administering to a patient in need thereof a therapeutically effective amount of celecoxib.
16. A method of treating or preventing benign hypertrophic tumors comprising administering to a patient in need thereof a therapeutically effective amount of celecoxib.

17. A method of treating, preventing, or minimizing scar formation during or following a surgical procedure comprising administering to a patient in need thereof a therapeutically effective amount of celecoxib.
18. A method of treating, preventing, or minimizing contracture formation during or following implantation of synthetic, autologous, or heterologous materials comprising administering to a patient in need thereof a therapeutically effective amount of celecoxib.